WHAT IS CLAIMED IS:

1. A testing system comprising:

a testing station having an actuator with a generally "U" shaped structure comprising a first arm and a second arm; and

at least two force transducers.

2. The testing system of claim 1 further comprising a linear actuator functionally connected with the generally "U" shaped structure.

3. The testing system of claim 2, wherein the linear actuator comprises a linear servomotor.

4. The testing system of claim 1, wherein the at least two force transducers generate a force signal and, if the force signal is greater than a predetermined force level, then the actuator reduces the force it provides, thereby decreasing the force signal.

5. The testing system of claim 1, wherein the force transducer generates a force signal and, if the force signal is less than a predetermined force level, then the actuator increases a force it provides, thereby increasing the force signal.

6. The testing system of claim 1 further wherein the first arm and the second are each functionally connected to a force transducer, whereby the force transducer can monitor a force applied by the first arm and a force applied by a the second arm.

7. The testing system of claim 1, wherein the generally "U" shaped structure is adapted to function test a rack and pinion assembly.

8. The testing system of claim 7 further comprising a pinion drive functionally connected to the rack and pinion assembly.

9. The testing system of claim 8, wherein the pinion drive is functionally connected to a rack and pinion assembly input shaft by means of a torque transducer.

10. A testing device for function testing a rack having a first end and a second end, comprising:

a linear motor capable of being operatively connected to the rack and adapted to apply resistive force to the rack;

a force transducer adapted to reactively provide a force signal to the linear motor; and

an actuator capable of being operatively connected to the rack near the first end and near the second end;

wherein the actuator is adapted to apply force to the ends of the rack.

11. The testing device of claim 10, wherein the linear motor comprises a linear servomotor.

12. The testing device of claim 10 further comprising a controller wherein, if the force signal is greater than a predetermined force level, then the controller reduces the force generated by the linear motor.

13. The testing system of claim 10, wherein the force transducer generates a force signal and, if the force signal is less than a predetermined force level, then the actuator increases the force it provides, thereby increasing the force signal.

14. The testing device of claim 10 further comprising a pinion drive functionally connected to a rack and pinion assembly.

15. The testing device of claim 14, wherein the pinion drive is functionally connected to a rack and pinion assembly input shaft by means of a torque transducer.

16. The testing device of claim 10, wherein the actuator comprises a generally "U" shaped structure.

17. The testing device of claim 16, wherein the generally "U" shaped structure has a first arm, a second arm, and a base.

18. The testing device of claim 17, wherein the first arm and the second are each functionally connected to a force transducer, whereby the force transducer can monitor a force applied by the first arm and a force applied by the second arm.

19. The testing device of claim 16, wherein the generally "U" shaped structure is functionally attached to a linear motor stage containing the linear motor.

20. A method for function testing a device, comprising:

applying a known resistive force to the rack by means of the linear motor;

providing an applied force by means of an actuator to both ends of the rack; and

adjusting the applied force response to a force signal from a force transducer.

21. The method for function testing of claim 20 further comprising utilizing an actuator with a generally "U" shaped structure.

22. The method for function testing of claim 20 further comprising providing the applied force to both ends of the rack by means of a first arm and a second arm of the generally "U" shaped structure.

23. The method for function testing of claim 20 further comprising functionally connecting each arm of the generally "U" shaped structure to a force transducer.